Mercodia

How to choose your Glucagon ELISA

What makes a glucagon assay great?

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Glucagon is a secreted peptide hormone from alpha cells in the pancreas and it is an essential regulator of metabolic homeostasis. Glucagon has been established as an important hormone that orchestrates glucose, lipid, and amino acid metabolism, as well as energy intake and expenditure.

With Mercodia's experience developing premium immunoassays, the high specificity and sensitivity of the assays, makes it easier for researchers to get reliable results. Mercodia's gold-standard Glucagon ELISAs have been used by multiple researchers and clinicians worldwide, who appreciate the accuracy of the glucagon measurements.

Inaccurate glucagon read-outs can result in problematic and negative implications on research and clinical decisions.

Superior sensitivity

Before using an assay, it is important to check the analytical sensitivity and ensure that the measurement range matches your expected sample levels. Some assays have a broader range than they can measure, so it is essential to confirm the accurate limits with the manufacturer.

Mercodia's Glucagon ELISAs have superior sensitivity, which enables you to measure physiologically suppressed levels of glucagon. This has been proven by multiple researchers, stating that only Mercodia's Glucagon ELISAs had optimal performance for measuring glucagon concentrations in clinical and animal samples (4, 5).

High specificity

Any cross-reactivity to the proglucagon-derived gut peptides should be low and if present, well described since they contain the full glucagon sequence.

Glicentin circulates at much higher levels than glucagon, and therefore cross-reactivity can result in serious measurement errors. To avoid problems with your results, always confirm what concentrations were used in the manufacturer's cross-reactivity testing, since the level of cross-reactivity is usually positively correlated to the concentrations tested.

Mercodia's Glucagon ELISAs have no or very low cross-reactivity to glicentin, proglucagon, and oxyntomodulin.

Minimal matrix interference

When analyzing samples, keep in mind that off-target molecules (like other proteins or lipids) could lead to altered or unexpected results.

Mercodia's Glucagon ELISAs contain a unique blocking solution to prevent or minimize matrix interferences, especially important for the animal glucagon assay.

Low sample volume

Most commercially available methods require at least 50–100 µL of plasma. Mercodia's Glucagon ELISAs were developed and optimized to require minimal sample volumes, with the assay for human samples requiring only 25 µL per well and 10 µL for the animal assay.

Low sample volumes enable scientists to measure glucagon along with other relevant hormones, and study temporal changes in glucagon in a variety of experimental models.

> The validation of the Mercodia ELISA for measuring glucagon in human samples showed that the assay meets our stablished acceptability criteria.

Kahn S.E. *et al.* 2021

References

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